

ABSTRACT**METHOD OF LASER MARKING AND APPARATUS THEREFOR**

- 5 A method of laser marking, suitable for the marking of hard transparent materials without causing microcracking, comprises arranging a sample of target material and a sample of markable material such that they are spaced apart; directing irradiation having an energy fluence above the ablation threshold of the target material onto the target material so that some of it is ablated and thrown onto a surface of the
- 10 markable material; and subjecting the surface of the markable material to irradiation having an energy fluence below the ablation threshold of the markable material to induce an interaction between the ablated material and the surface which marks the surface with the ablated material. Different colours of mark can be obtained by using different target materials, and the tone of the mark can be controlled as desired.
- 15 Apparatus for implementing the method permits control of the method in real time.

Figure 1